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ABSTRACT

The correlative features of assigned reading and in-class performance were evaluated for 75 students enrolled in psychology classes in two community colleges in Maryland. Four tests and a final examination were used to measure in-class performance as a function of rates of reading and times of attendance. Control for content was attempted by assigning a different book to one of the classes. Times of attendance were varied to control for assumptions about the differences between students who attend daytime and those who attend evening classes. Based on these manipulations, no statistical differences were found between the students' reading and successful course outcomes; students were equally successful whether or not they read the assigned text. There were no differences in the performance of students in morning, afternoon, or evening classes. Suggestions for alternatives to assigned texts included selected materials and the self-motivated use of outside sources. Seven data tables and one figure are included. (Author/SLD)

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CLASSROOM TEXTS: AN INVESTIGATION OF THE CORRELATIVE FEATURES OF ASSIGNED READING AND TEST PERFORMANCE

Applied Educational Research and Evaluation

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Degree of Doctor of Education

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ABSTRACT

This study was an attempt to evaluate the correlative features of assigned reading and in-class performance. This effect was also varied by the classes attended by the participants. The participants were 75 students enrolled in Psychology 101 classes at Essex Community College and Catonsville Community College in Maryland. Four tests and a final exam were used to measure in-class performance as a function of rates of reading and times of attendance. Control for content was attempted by assigning a different book to one of the classes. Times of attendance were varied to control for assumptions about the differences between students who attend daytime and evening classes. On the bases of these manipulations, no statistical differences were found between the student's rates of reading and successful course outcomes. For this sample, the students were equally successful whether or not they read the assigned text. The results here also indicated there were no differences between the performances of morning, afternoon or evening students. It was concluded that the effect of rates of reading on successful course outcomes warranted further investigation through a more detailed design. Suggestions for alternatives to assigned texts included selective materials and self-motivated use of outside sources.

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Section 1

INTRODUCTION

The Problem for Investigation

The current study was designed as an attempt to see whether the reading of an assigned text would make a difference on students' test performances. For some courses, considerable weight is given to auxiliary materials. However, the importance placed upon assigned texts may not be warranted.

The Purpose of Investigation

How much, how well and how attentively students read all contribute to the assimilation of information. The purpose of this study was to examine the ways in which assigned texts were being used, and if these methods correlated with successful course outcomes.

In this study, the data gathered for examination was pursued through two methods of investigation. The first part of this practicum was to examine how thoroughly the assigned text was being read. The next part of the procedure was to analyze the relationship between the students' rates of reading and their test scores.

The Method of Investigation

In this study, the students were assigned a class text, to be read according to a predetermined schedule. The course syllabus indicated that reading the book and attending class lectures were requirements for which the students were responsible.

Instructions for the course also included the preparation of a reading schedule. In the syllabus, notice was given that five final grade points would be forfeited if the reading schedule was not submitted. The students were also told that their rates of reading would have no impact on their final grades in the course.

Two reasons were given for the reading schedule requirement. First, it was presented as a candid appraisal of how the book was being used. Next, the students were told that the reading schedules were an attempt to evaluate the use of the book compared to its expense.

Section 2

BACKGROUND AND SIGNIFICANCE

Relationship to the Seminar

Understanding the correlation between auxiliary materials and classroom performance is directly related to the evaluative procedures presented in the Applied Educational Research and Evaluation Seminar. Investigating procedures, comparing results and empirically testing their success or failure is the foundation of applied research. This investigation was an attempt to provide additional information about the strength of the correlation between rate-of-reading and test success assumptions.

Literature Review

Carl Rogers (1983) has suggested that the effects of human learning in a classroom persist. As part of a course requirement, Rogers asked students to assess how much and how thoroughly they had read supplemental materials. For Rogers' class, no specific texts had been assigned. Rogers felt that this type of freedom would develop a climate of creative learning.

Tests and Textbooks

Hayes (1988) has suggested the need for more teacher-textbook interaction. Hayes proposed that linking existing knowledge to the concepts in the text, would enhance comprehension and retention.

Schick (1989) has also suggested selective use of textbook

manuals. Schick proposed less reliance on textbook test banks and more emphasis on questions applicable to the content of the course.

Most publishers have been attacked for producing superficial and oversimplified books (Fiske, 1984). Yet, textbooks seem to be growing at an exponential rate. Kerber (1988) predicted that by the year 2000, at the current rate of growth, organic chemistry textbooks will be 1544 pages long.

As the books get heavier, their costs become more imposing. In addition, these costs have a cumulative effect. At the rate of fifteen credits per semester, a student is required to buy at least five books. For some courses, more than one text is required. Furthermore, variations in textbook prices do not correlate with textbook quality (Sommer, 1988).

Sommer found that university faculty were less price conscious when selecting textbooks than were community college faculty. Today, most introductory class texts cost about fifty-dollars. Perhaps the time has come for instructors to evaluate not only the amount of money being spent for one course, but the cumulative costs implied across a standard semester.

Many publishers have become more sensitive to instructor complaints and student expenses. McGraw-Hill has introduced a system which allows professors to choose the information included in their textbooks (Turner, 1989). Using a large computerized data base, this system customizes, produces and delivers the book in less than one week. In most cases, the customized book costs less than a conventional one.

Reading and Performance

First-time, adult readers have been shown to be more successful with materials of specific interest (Gillis & Longion, 1982). Direct links have also been demonstrated between students' attendance patterns and performance (Immerman, 1982). However, little literature exists comparing adult, non-remedial readers to their performance in the classroom.

Although reading preferences and reading performance have been examined, most studies have been applied to remedial situations. For these groups, oral reading and repeated reading have had successful impacts on performance (Fuchs, 1988, O'Shea & O'Shea, 1988). These effects were supported by Wilkinson (1988), who found no significant outcomes of silent reading on performance.

Reading Abilities

It has been suggested that a discrepancy exists between the reading levels of college students and college-level reading materials (Olson, 1986). Most texts are written above the level of the students who will use them (Scruggs, 1988).

In 1988, Dixon examined the effects of word knowledge and working memory as predictors of reading skill. Dixon found that neither reading comprehension nor reading speed were predictors of reading skill.

Actual reading abilities have also been shown to be independent of perceived abilities. Reed (1989) found no correlation between students' perceptions about their reading abilities, their actual abilities and their grade point averages. Furthermore, those students with the least

accurate perceptions about themselves attained the lowest grade point average.

Creative Learning

By virtue of attaining admission, every student perceives himself or herself as being competent to be in that classroom. As Reed pointed out, self-perceptions are ofttimes erroneous, and over-confidence may not be justified.

Even for those students who do read the assigned material, there are no guarantees that it is being read in the right way. As suggested by Gillis and Longion, teachers should employ methods that encourage reading competence and personal enjoyment. It may just be that we are doing students a gross injustice when we hand them a book and expect them to perform based upon its contents.

Institutional Significance

How classroom texts are used should be of significant interest to all educators. The costs of the books, their devaluation and their obsolescence are factors which impact upon students, instructors and institutions.

As costs continue to spiral, assigning a book because it is the accepted thing to do rather than because it is a necessity, is grossly unfair. This is especially true when the auxiliary materials bear little relationship to successful course outcomes. Other options which would encourage the students to use the school library may be much more practical and, as Rogers suggested, much more beneficial.

Theoretical Reasons for Review

Assigned reading and assessment of its assimilation are concerns which are of interest to all educators. Today, for many classes, the texts are more expensive than the course. Furthermore, once purchased and used, a book's resale value depends upon its condition. At best, a clean book devaluates by half.

For the student, the tradeoff for buying a used book is being influenced by the previous owner's markings. While having a ready outline can certainly be an advantage, its value depends on how well the previous owner did in the class.

Furthermore, a used book may have been assigned by another instructor teaching the same course. Therefore, information highlighted in the old text may be different from the information attended to in the new class, and a distraction instead of an advantage.

Casual conversations with students have indicated that very few choose to borrow or share a book for the same class. In reality, most students buy the crisp new edition and never open it again after they complete the course.

Publishing classroom texts is a business and college bookstores are successful retail operations. These are not altruistic services provided by nonprofit organizations. If costly texts are not service their proposed purpose, perhaps course requirements should be readjusted to more conservative measures. For most courses, other methods to impart auxiliary information are readily available.

Section 3

PROCEDURES

The current study was an attempt to examine whether or not classroom performance was enhanced by independent assignments. The course syllabus included the name of the book to be read, the dates by which this reading should be done, and the following instructions.

> You are responsible for the contents of the book whether or not this information has been presented in class.
>
> You are required to prepare a "reading schedule" to evaluate your interests in the contents of the book.
>
> 1. List the chapters by number and title.
> 2. Beside each chapter indicate your reaction as follows: skimmed, did not read, read thoroughly.
> 3. Circle the chapter that you felt was most interesting.
>
> Please understand that neither your reactions nor the issue of whether you have or have not read the book have any influence on your final grade. Five points will be subtracted from your final grade if this schedule is <u>not</u> completed.

At the end of the semester, the reading schedules were compared to the final exam. This exam was an objective instrument administered in class.

Development of the final exam included its covert separation into four sections. Each section was representative of each of the four tests administered across the semester. Each section also represented consecutive one-fourth portions of the book.

Population and Selection Procedures

Students enrolled in three sections of Psychology 101 provided the data for examination. These participants were enrolled in morning, afternoon and evening courses at two schools. The students comprised two daytime sections at Essex Community College and one nighttime section at Catonsville Community College. This cross-section was an attempt to represent the differences in types of students attending college in different time slots.

Although these classes consisted of a total population of 110 students, only 75 participated in the study. The differences between the actual population and the final sample was the result of two effects.

First, if a student did not turn in a reading schedule, then the test results for that student were omitted from the data. Next, because of dropouts and absentees, not all the students participated in all administrations of the tests. In this study, only the scores of the students who had participated in each of the four tests and the final exam were used.

These two restrictions imposed limitations on the sample size. To be included in the data, a student had to submit a reading schedule and had to have participated in all the tests.

Development and Administration of Texts

Test questions were generated through the use of two published test files (Piggrem, 1988; Quinn, 1988), two required books (Morris, 1988; Papalia & Olds, 1988), and the classroom lectures.

The use of different books was an attempt to control for content. Although both books contained the same information, the material was presented differently in the two texts. The students had prior access to all the material presented, and the same instructor administered each test.

Each of the first four tests consisted of eighty questions. Because of temporal and spacial constrains, all the questions could not be presented in one cumulative final. The final exam was comprised of the same number of questions as the original tests. The questions presented in the four sections of the final exam were identical to those the students had encountered in the original tests.

Across the semester, the students had been exposed to 320 questions. Four eighty-question final exams were used to assess the students' performance. These four versions of the final exam represented the 320 questions initially presented.

The four versions of the final were developed by using every fourth question on the original tests. For example, question 4 on the first test became question 1 on the final exam. Using this method, all the questions were represented, and each student received a representative sample of the cumulative whole.

After the final exams were assembled, they were thoroughly shuffled and placed face-down in a pile. As each student came into class, he or she took the test on the top of the pile. This type of self-selection resulted in a double-blind effect. Neither the students nor the instructor knew in advance which test was being taken. Furthermore, the students did not know there were four versions of the final exam.

Reliability and Validity

Reliability of the tests was established through correlation coefficients between the scores attained by the three classes. Using the Pearson Product-Moment correlation formula, reliability was computed as follows:

Table 1

Comparisons of the Scores Attained by Each of the Three Classes Tested

Class	N	Total Score First Test	Total Score Final Exam	Correlation
Morning	23	1313	1295	r = .52
Afternoon	23	1311	1240	r = .52
Evening	29	1618	1741	r = .49

The strength of these results indicated that the tests were sufficiently reliable.

Face validity was established through the test files, the books and information presented in class. The items for consideration were assembled into a test designed to survey the four domains of the course.

Statistical Analyses

Research evaluation for this sample was examined through two between-groups Analyses of Variance. First, the individual and interactive effects of class section (morning, afternoon and evening),

and reading rate (skimmed, did not read, read thoroughly), were examined. The dependent variable, performance, was measured by the scores attained on the final exam.

Next, the data was subdivided by the individual tests taken across the semester. This analyses varied the effects of class attendance, reading rate and the four regularly scheduled exams. Performance in this design was measured by the scores attained on each of the four exams.

Research Questions

In this study, the question for consideration was; is there a pattern between independent reading assignments and classroom performance? It was hoped that the investigation of course outcomes as a function of rates of reading would provide additional insight into the reasons for individual differences in classroom performance.

Operational Definitions

Data Collection

Rate of reading was assumed to be an honest assessment provided by the students. Each student's rate of reading was determined by how he or she had indicated the book was read. After the reading schedules were submitted, a master chart was prepared to organize the data for each class section.

Table 2

How the Students Used the Books

Test Content	Read			Skimmed			Did Not Read		
	M*	A*	E*	M	A	E	M	A	E
First Section Totals	55	57	85	25	31	21	12	4	10
1: Introduction	17	20	27	6	2	2	0	1	0
2: Biology/Behavior	16	17	20	4	6	6	3	0	3
3: Sensation/Perception	9	10	21	9	12	5	5	1	3
4: States/Consciousness	13	10	17	6	11	8	4	2	4
Second Section Totals	26	36	57	39	45	43	27	11	16
5: Learning	8	7	18	9	12	8	6	4	3
6: Memory	7	8	15	8	15	10	8	0	4
7: Cognition	5	10	11	12	7	14	6	6	4
8: Intelligence	6	11	13	10	11	11	7	1	5
Third Section Totals	37	26	53	36	54	38	19	12	16
9: Infancy/Childhood	10	7	16	10	13	10	3	3	3
10: Adolescence/Adult	9	7	19	9	15	5	5	1	5
11: Motivation/Emotion	6	8	14	11	15	11	6	0	4
12: Personality	12	4	13	6	11	12	5	8	4
Fourth Section Totals	25	31	48	42	45	35	25	16	43
13: Stress/Adjustment	7	10	12	12	10	11	4	3	6
14: Abnormal Behavior	5	7	10	13	11	9	5	5	10
15: Therapies	4	7	10	10	14	9	9	2	10
16: Social Psychology	9	7	6	7	10	6	7	6	17

Morning: n = 23
Afternoon: n = 23
Evening: n = 29

Examination of Table 2 indicates that across conditions, the classes used the books in similar ways. The students' rates of reading are graphically illustrated in Figure 1.

It should also be noted that the structures of the books were different. The day students' book contained sixteen and the evening students' book contained eighteen chapters. The two chapters were additional material included in the evening students' book. As such,

they were deleted from the design. All other chapters were matched to corresponding topics and were included as stated in the sections tested.

Both books contained Appendices for statistical procedures. Although the Appendix was required reading, very few students did so.

Data Interpretation

Rate of reading was then determined by the percentage differences between the amounts read thoroughly, skimmed and not read. This effect was then applied to the total of the raw scores on the final exam. Performance, therefore, was a percentage of the raw scores attained on the final exam.

Table 3

Reading Rate Percentages used as a Function of the Raw Scores Attained for Each Exam

Class	Total	Read (%)	Skimmed (%)	Not Read (%)
Test 1				
Morning	1313	788 60%	355 27%	170 13%
Afternoon	1311	813 62%	446 34%	52 4%
Evening	1618	1181 73%	291 18%	146 9%
Test 2				
Morning	1201	336 28%	517 43%	348 29%
Afternoon	1528	596 39%	749 49%	183 12%
Evening	1480	725 49%	548 37%	207 14%
Test 3				
Morning	1459	584 40%	569 39%	306 21%
Afternoon	1184	332 28%	699 59%	153 13%
Evening	1911	1013 53%	631 33%	267 14%
Test 4				
Morning	1322	357 27%	608 46%	357 27%
Afternoon	1327	451 34%	650 49%	226 17%
Evening	1654	546 33%	496 30%	612 37%
Final Exam				
Morning	1295	505 39%	505 39%	285 22%
Afternoon	1240	508 41%	583 47%	149 12%
Evening	1741	905 52%	522 30%	314 18%

Table 3 indicates that, for this sample, the scores attained on each of the tests were consistent between the three groups. The higher scores demonstrated by the evening students were a function of the number of students in that class. These scores, therefore, were not attained as a result of performance differences. The percentages applied to them, however, were computed by using the same formula applied to the other scores.

Limitations and Assumptions

Any predictions based upon the current study must be limited to the participating sample, the students surveyed at Essex and Catonsville Community Colleges. Furthermore, the data supplied relied on the interpretations of others rather than on empirical testing.

Although it was assumed that the students provided an honest and accurate description of their rates of reading, this may not have been the case. Furthermore, the reading rates of the students in no way imply an understanding of the material.

Regardless of what indications were given that the requirement to read would not affect their grades, the students may still have been intimidated by ingrained experiences in other classes. Considerable responsibility passes to the individual when he or she has a choice to complete an assignment.

Even though a student knows that an assignment will be an integral part of the course, does not assure its completion. Support for this effect was provided through those students who lost five points by noncompliance with the course instructions. Similarly, since no follow-up was required, discretion may have been the better part of valor. This is not to say that the students answered dishonestly. However, since any answer would do, doing something may have been more realistic than doing nothing.

Furthermore, the descriptions of their reading may leave something to be desired. For example, "read thoroughly" to one person could fluctuate between speed-reading and rereading a chapter. In addition, although no students with learning disabilities were included in this

study, these deficits are sometimes not diagnosed. While it is unlikely that student deficits may have skewed this distribution, their possible presence should be acknowledge.

Finally, one other effect should be addressed. The scores attained on the final exam may be misleading in two ways. First, the compositions of the tests, and next the computations based upon them.

Because the final exams were structured in such a way as to assure the presentation of the total amount of questions, all the students were not exposed to all the questions. As such, a student's grade was determined by how adept he or she was on that version of the test taken. It is unlikely, however, that all the students would fit into this question-match comfort category.

In addition, the percentage scores may not accurately represent the true influence of rates of reading. Ideally, a within-subjects design testing the effects of each chapter would be more robust. Although ideal, this scenario would require too many exams to be realistic.

Section 4

RESULTS

Statement of Results

In this study, neither the rate of reading nor the time of attendance had a significant effect on classroom performance. These results may have been confounded because the four tests were scored as composites of several chapters. Although the cumulative final should be representative of the semester, qualifications here are also in order. For the final exam, no student had been exposed to all the questions he or she had encountered during the class.

When the tests were separated, only test content had a significant effect on performance. Although significant differences in performance were demonstrated, this effect should not be attributed to only one factor. Across conditions, the rates of reading were the same for each of the three groups.

Other variables such as study skills, the amount of time spent studying or the motivation of the students may have acted to confound these results. As a result, while some interactions may be indicated, no empirical effects can be demonstrated or should be implied.

A presentation of the results of this study is displayed through descriptive tables and narrative form. Percentage distributions were based on the group score for each test. The students' rates of reading were tabulated for each chapter, and these distributions were applied to each section.

Descriptive Tables and Analyses of the Data

Table 4

Analysis of Variance of Test Scores on the Final Exam as a Function of Rates of Reading and Times of Attendance

Source	SS	df	MS	F
Rate of Reading	109	2	54.50	.23
Time of Attendance	497	2	248.50	1.04
Reading x Attendance	92	4	.50	.002
Error	15812	66	239.58	

Table 4 indicates that for this sample, neither the rate of reading nor the time of attendance had a significant effect on classroom performance.

Table 5

Mean Distributions of Test Scores as a Function of Rates of Reading and Times of Attendance

Class Attended	Rate of Reading			
	Read	Skimmed	No Reading	Total
Morning	56.11	56.11	57.00	(56.30)
Afternoon	56.44	53.00	49.67	(53.91)
Evening	60.33	58.00	62.80	(60.03)
Total	(58.13)	(55.51)	(57.54)	
Grand Mean				(57.01)

Examination of Table 5 indicates that, across conditions, there were no differences between the test scores of the three classes. These scores imply that successful course outcomes were not dependant upon auxiliary materials.

Table 6

Analysis of Variance of Test Scores as a Function of Test Content, Time of Attendance and Rate of Reading

Source	SS	df	MS	F
Test Content	1316	3	438.67	6.99**
Time of Attendance	28	2	14.00	.22
Rate of Reading	176	3	88.00	1.40
Content x Attendance	7605	6	1267.50	20.22**
Content x Reading	7457	6	1242.50	19.82**
Attendance x Reading	8745	4	2186.25	34.87**
Content x Att. x Reading	7429	12	619.08	9.88**
Error	16550	264	62.69	

**p <.01

Inspection of Table 6 indicates that the test content had a significant effect on test performance. For this sample, when the results of the four tests were separated, the students who had read the book were more successful on Test 1 $t(66) = 2.43$, $p < .05$, and Test 2 $t(66) = 2.00$, $p < .05$, than those who had skimmed or not read the material.

For Test 3, significantly higher results were attained by the morning students $t(66) = 3.20$, $p < .01$, and the evening students $t(66) = 3.72$, $p < .01$, than by the afternoon students. On Test 4, there were no significant differences as a function of either time of attendance or rate of reading. The means of these distributions are illustrated in Table 7.

Table 7

Mean Distribution of Test Scores as a Function of Test Content, Times of Attendance and Rates of Reading

Class Attended	Rate of Reading			
	Read	Skimmed	No Reading	Total
Test 1				(56.56)
Morning	56.29	59.17	56.67	
Afternoon	50.07	55.75	52.00	
Evening	56.24	58.20	48.67	
Test 2				(56.12)
Morning	56.00	51.70	49.71	
Afternoon	66.22	68.09	61.00	
Evening	48.33	54.80	51.75	
Test 3				(60.72)
Morning	64.89	63.22	61.20	
Afternoon	55.33	49.93	51.00	
Evening	67.53	63.10	66.75	
Test 4				(57.37)
Morning	59.50	55.27	55.50	
Afternoon	56.38	59.09	56.50	
Evening	54.60	62.00	55.64	
Total	(58.06)	(58.04)	(56.05)	
Grand Mean				(57.69)

Across the semester, the students' patterns of reading were very similar. These rates of reading are illustrated in Figure 1. Although the overall rates of reading were combined for the three classes, individually, their distributions were almost the same.

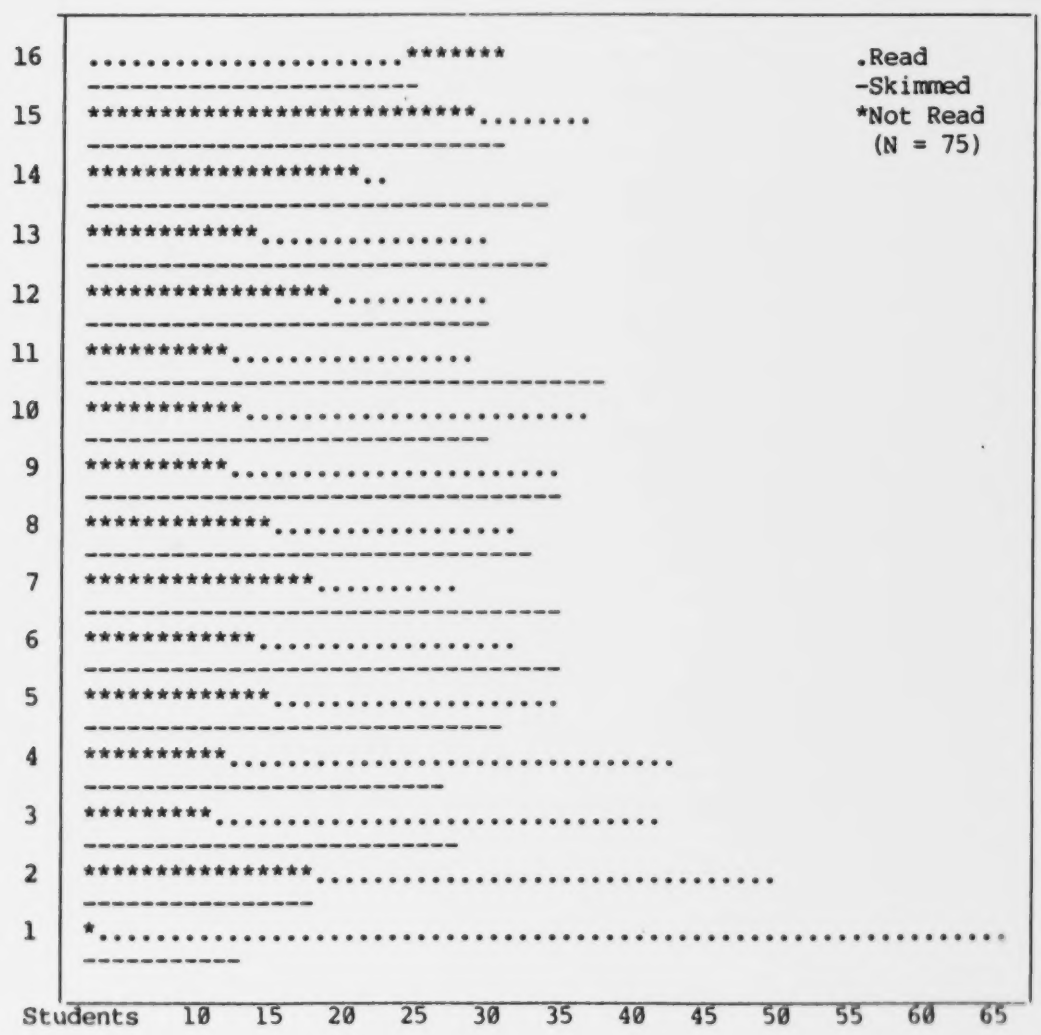

Figure 1

Students Rates of Reading Across the Semester

As illustrated in Figure 1, the first two chapters were the ones most thoroughly read by the students. For this sample, reading rate declined as the semester progressed.

Section 5

DISCUSSION, IMPLICATIONS AND RECOMMENDATIONS

Interpretation of the Data

The results of this study indicated that, for the participants sampled, reading rates made no significant differences in successful course outcomes. For this group, auxiliary materials did not enhance classroom performance. The results of this effect may present some additional questions.

First, would the students have done better if they had read more thoroughly? Next, did their reading rate decline because they were satisfied with their performances? Finally, what implications can be derived from noncompliance with course requirements?

Rate of Reading

Although the students who read the book were more successful on tests one and two, there were no statistical differences when the overall results were compared. Therefore, while it could be assumed that test scores may have been enhanced by additional reading, they probably would not have been significantly higher.

Overall, there were no significant differences in how the students used the book. A comparison of the means between the rates of reading disclosed almost identical distributions between the three reading conditions. These results were supported by both the final exam and the four in-class tests. Therefore, neither the way the material was presented (different books), nor the times the students attended, contributed to overall rates of reading.

Motivation

It could be suggested that the students' successful results on Test 1 and Test 2 may have contributed to their lack of reading as the semester progressed. Examination of how the chapters were read indicated that reading declined as time progressed. Although the rates of reading declined, in-class performance did not. Therefore, having satisfactorily performed as a result of little reading may have reinforced the students' non-reliance on the book.

Next, the students did indicate that they preferred specific chapters. While these choices represented a wide distribution of personal likes and dislikes, several patterns seemed to emerge.

According to the students' self-selected preferences, Chapter 4: States of Consciousness, was their favorite part of the book. The chapters on abnormal behavior the theories of personality also received high interest ratings. The fourth chapter was one of the parts of the book thoroughly read and included among the distribution for Test 1. Although no causal connection can be implied, it is interesting to note that the students did very well on Test 1.

An effect of interest-performance salience would support the results demonstrated by Gillis and Longion. The more the students liked the material, the more they read.

Noncompliance

Each syllabus outlined accountability for the contents of the books. Yet, the students self-descriptions indicated very little thorough reading.

When questioned about their personal habits, some of the participants indicated that they never read the books assigned for any

classes. However, these same people, who did no reading, had all purchased the book. This incongruity was not limited to one class. Furthermore, the nonreaders did not feel that it was a waste of money to buy something that they would never use. All the nonreaders said that they bought the texts for all of their classes.

On the other hand, many students indicated that they always read auxiliary materials. This reading was not dependent upon how much material was assigned or upon the nature of the assigned materials.

Research Implications

Not all student study alike, nor do they come to class with the same motivations or for the same reasons. Furthermore, their attendance patterns lie on a continuum between always present to never there. In any classroom, the abilities of students differ.

It is commonly held that evening students are older and more disciplined in their educational pursuits. In this study, the students in the evening class were considerably older than those in the daytime classes. Yet, no differences were disclosed as a function of times of attendance.

While no assigned text could be considered recreational, obviously some are more interesting than others. In this study, even the chapters found most interesting were not the ones that had the highest rates of reading. The data here has shown that while not all students used the two books in the same way, their in-class performances were remarkably similar.

This effect would lend credence to the idea that neither structure nor content are salient factors in the amount of material students will

read. It may just be that for any course, everyone will read the first chapter, almost no one will read the last, and personal habits will act to mediate the rates of reading for the rest of the book.

Furthermore, reading rate may not assure a parallel path to successful classroom outcomes. Ultimately, some of the students who did read, did not do well, and some of the students who read nothing were very successful in the course. In this study, the structure of the book was of no consequence. Across the semester, the reading rates were similar for daytime and evening students, and were independent of how the material was presented.

Recommendations for Further Investigation

Although sample size and the reliance on self-selected features may have acted to confound these results, the lack of statistical differences should not be ignored. The influence of an assigned text on classroom success requires further investigation.

Additional research could include studies designed to test these variables in a more detailed way. For example, surveying rates of reading for different courses could be a better indication of how classroom texts are used.

Perhaps educators should readjust their requirements to more conservative measures. If these costly texts are not serving their proposed purpose, then other methods to impart this information should be found.

For example, using a similar book instead of the same book is a viable option for cost-conscious students. Specific materials on reserve in the school library could also serve as an alternative to

costly textbooks. The amount of money spent on copying these materials would be far less than the cost of an assigned book.

Assigned topics and suggested readings could motivate students to more in-depth investigation. Essays on the assignments instead of exams might present a better indication of what learning has taken place.

Ultimately, the student must not only read the book, he or she must understand and enjoy it. It is the teacher's responsibility to supplement the book in a way that makes the pages come to life.

Potential Impact

Many implications for improved performance can be suggested by the results of this investigation. If more time spent on outside auxiliary materials does not predict success, then strategies to reinforce the information presented in class should be considered.

Other studies have suggested that most of the information gathered for a test is probably forgotten immediately after the examination (Rochlin, 1989). If this is the case, then educators should attempt some individual-interest/course-requirement congruence.

Since most instructors teach the same course, knowing how the students are using their books could be a valuable resource for future scheduling and testing. Designing a course which weighs heavier on interesting material may enhance both performance and retention.

The rote delivery of chapter-by-chapter contents leaves much to be desired. Of course, it would be foolish to suggest that instructors should abandon all semblance of discipline, and naive to expect all students to have similar interests.

The purpose of attaining an education is its unique value to the recipient. Therefore, every effort should be made to present what the recipient perceives valuable. Within the parameters of course restrictions, considerable autonomy is given to the instructor. For assignments outside of the classroom, Rogers suggestions have been supported. Learning, left to the learner, could yield favorable results.

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